

5           A noble metal chip of which one end is welded to an earth electrode by laser has a sectional area of not less than  $0.12\text{mm}^2$  and not more than  $1.15\text{ mm}^2$  at the other end. A length from the surface of the earth electrode to the top surface of the noble metal chip is not less than  $0.3\text{ mm}$  and not more than  $1.5\text{ mm}$ . An outer surface of the  
10 fused junction layer obtained by laser welding between the noble metal chip and the earth electrode has a concave surface, wherein the slope on the plane including the axis of the noble metal chip is curved with a radius  $R$ .